Objective/Purpose:
The purpose of this activity was to teach the kids that everyone and everything has a shadow. Another main point to stress is the fact that the only way a person or an object will not have a shadow is if there is no light in the room, but if there is light, a shadow will be cast. This activity allowed the kids to use their creativity and allowed them to actively participate in the lesson which made it enjoyable to them.

QCC:
Standard: Actively engages in the learning process via hands-on/minds-on science activities.
Standard: Identifies and practices accepted safety procedures in manipulating science materials and equipment.

Background Information:
The class had just talked about Groundhog Day so this set up the lesson for shadows nicely. The kids knew what a shadow was by this point, but this allowed the students to fully comprehend how shadows were made and that everything has a shadow. The kids were very excited to participate in the lesson, so you have to be prepared to maintain control of your class.

Time Required:  One class period.

Material Needed:
1. Nothing Sticks Like a Shadow by Ann Tompert
2. The Oxford Treasury of Children’s Poems the poem “My Shadow” (pg33)
3. A film projector
4. an extension cord
5. A big sheet of white butcher paper
6. different objects such as a fork, a spoon, a cut-out of a dog or cat, a circle, a triangle, a square

Preparation:
The books listed above were checked out of the Athens’ Library. If you can’t find the books listed above, get a different story book that deals with shadows. There are a lot of books to choose from at the Athens’ Library. Make sure to have the film projector ready before your class starts. The film projector cord might be too small. That is why I suggested you bring an extension cord. It would also be a good idea to go ahead and tape the white butcher paper over the area that you are going to be illuminating. Make sure you have the objects you are going to use with you before going to class.
Procedure:
1. Have the kids sit down in their assigned places on the class rug.
2. In class, read *Nothing Sticks Like a Shadow* and at the end of the story, ask the students:
   - Can you hide from your shadow behind a bush?
   - Can you sweep your shadow away?
   - Can you soak your shadow away?
   - Can you hide from your shadow there is sunlight
   - Can you hide from your shadow at night?
3. Then turn the off the lights and turn on the film projector. Have the film projector placed close to the rug, so the kids won’t have to walk that far to get to the film projector. Tell the kids not to touch the film projector because it could burn them and tell them not to play with the extension cord either because they could break the film projector or hurt themselves.
4. Next, I held up the different objects that I had brought with me close to the film projector. I made the kids guess what I was holding up based upon the shadow that it cast against the butcher paper.
5. Then one by one I had the kids come up to the film projector and they got to make their own shadow puppet. The other kids got to guess what animal the student was making.
6. After all the kids made a shadow puppet once; I turned off the film projector and turned on the lights. I then made them recite the poem “My Shadow” with me. I said a line and they repeated it. It is a really good poem to bring everything together.

Safety Issues:
Don’t let the kids get too close to the film projector. You don’t want the film projector to break and you don’t want the kids to get hurt.

Possible question: See the procedure section.

Assessment/Follow-up:
My assessment was based on the students’ ability to answer the questions made about the story. If they can tell me that shadows arise when there is light and that everything has a shadow, I feel as though I have accomplished my job.